

AMENDMENT TO THE CLAIMS:

Please cancel claims 1-26 without prejudice or disclaimer and add claims 27- as follows:

Claims 1-26 (canceled)

Rule
1.1/26

²⁷
Claim ~~26~~ (new): A wireless portable data terminal (PDT) system, comprising:
a hand-supportable housing having a user console integrated therewith;
a data capture engine integrated within said hand-supportable housing; and
an alphanumeric keypad and control function buttons located on said user console at locations that enable the user to move his or her thumb without loss of secure grip about said housing during single-handed operation in diverse user environments.

²⁸
Claim ~~27~~ (new): The wireless PDT system of claim ~~26~~²⁷, wherein said control console comprises a display panel located below said alphanumeric keypad and said control and function buttons.

²⁹
Claim ~~28~~ (new): The wireless PDT system of claim ~~26~~²⁷, wherein control over the navigation of the display screen cursor on said display panel can be achieved by the operator's thumb engaging a multi-position cursor control button above said alphanumeric keypad, while holding and operating said PDT system in the operator's hand.

³⁰
Claim ~~29~~ (new): The wireless PDT system of claim ~~26~~²⁷, wherein said display panel is easy to view in even brightly lit user environments.

³¹
Claim ~~30~~ (new): The wireless PDT system of claim ~~26~~²⁷, wherein said data capture engine is manually activated by depressing a bar code reading activation switch on said user console.

³²
Claim ~~31~~ (new): The wireless PDT system of claim ~~26~~²⁷, wherein said data capture engine is automatically activated in response to the automatic detection of an object within the field of view of said data capture engine integrated within said hand-supportable housing.

³³
Claim ²⁷~~32~~ (new): The wireless PDT of claim ²⁷~~26~~, designed for support within the cradle of a base station which interfaces with a host system using either USB or RS232 interface.

³⁴
Claim ²⁷~~35~~ (new): The wireless PDT system of claim ²⁷~~26~~, wherein said data capture engine is a 1D or 2D laser scanning bar code reading engine integrated into said hand-supportable housing.

³⁵
Claim ²⁷~~34~~ (new): The wireless PDT system of claim ²⁷~~26~~, wherein said data capture engine is a laser scanning bar code reading engine integrated into said hand-supportable housing.

³⁶
Claim ³⁵~~35~~ (new): The wireless PDT of claim ³⁵~~34~~, wherein said laser scanning bar code reading engine comprises a manually-triggered laser scanning bar code reading engine programmably configured for bar code reading operation upon manually depressing an imager activation button (i.e. switch) provided on the user control console of said wireless PDT system.

³⁷
Claim ³⁵~~36~~ (new): The wireless PDT of claim ³⁵~~34~~, wherein said laser scanning bar code reading engine comprises an automatically-triggered laser scanning bar code reading engine with IR-based object detection, and programmably configured for automatic bar code reading operation and transmission of symbol character data to a remote base terminal upon manually depressing a data transmission button (i.e. switch) provided on the user control console of said wireless PDT system.

³⁸
Claim ³⁵~~37~~ (new): The wireless PDT of claim ³⁵~~34~~, wherein said laser scanning bar code reading engine comprises an automatically-triggered laser scanning bar code reading engine with laser-based object detection, and programmably configured for automatic bar code reading operation and transmission of symbol character data to a remote base terminal upon manually depressing a data transmission button (i.e. switch) provided on the user control console of said wireless PDT system.

³⁹
Claim ³⁵~~38~~ (new): The wireless PDT of claim ³⁵~~34~~, wherein said laser scanning bar code reading engine comprises an automatically-triggered laser scanning bar code reading engine with passive CCD-based object detection, and programmably configured for automatic bar code reading

operation and transmission of symbol character data to a remote base terminal upon manually depressing a data transmission button (i.e. switch) provided on the user control console of said wireless PDT system.

⁴⁰
Claim ~~38~~³⁵ (new): The wireless PDT system of claim ~~34~~³⁵, wherein said data capture engine is a linear-type imaging engine integrated into said hand-supportable housing, capable of reading 1D and 2D bar code symbols.

⁴¹
Claim ~~40~~⁴⁰ (new): The wireless PDT of claim ~~39~~⁴⁰, wherein said linear-type imaging engine comprises a manually-triggered linear-imaging engine programmably configured for image-based bar code reading operation upon manually depressing an imager activation button (i.e. switch) provided on the user control console of the wireless PDT system.

⁴²
Claim ~~41~~⁴⁰ (new): The wireless PDT of claim ~~39~~⁴⁰, wherein said linear-type imaging engine comprises an automatically-triggered linear-imaging engine with IR-based object detection, and programmably configured for automatic image-based bar code reading operation and transmission of symbol character data to a remote base terminal upon manually depressing a data transmission button (i.e. switch) provided on the user control console of said wireless PDT system.

⁴³
Claim ~~42~~⁴⁰ (new): The wireless PDT of claim ~~39~~⁴⁰, wherein said linear-type imaging engine comprises an automatically-triggered linear-imaging engine with laser-based object detection, and programmably configured for automatic image-based bar code reading operation and transmission of symbol character data to a remote base terminal upon manually depressing a data transmission button (i.e. switch) provided on the user control console of the wireless PDT system.

⁴⁴
Claim ~~43~~⁴⁰ (new): The wireless PDT of claim ~~39~~⁴⁰, wherein said linear-type imaging engine comprises an automatically-triggered linear-imaging engine with passive CCD-based object detection, and programmably configured for automatic image-based bar code reading operation and transmission of symbol character data to a remote base terminal upon manually depressing a

data transmission button (i.e. switch) provided on the user control console of said wireless PDT system.

⁴⁵
Claim ~~44~~⁴⁹ (new): The wireless portable data terminal (PDT) system of claim ~~28~~²⁹, wherein said data capture engine is an area-type imaging engine integrated into said housing, capable of reading 1D and 2D bar code symbols.

⁴⁶
Claim ~~45~~⁴⁵ (new): The wireless PDT of claim ~~44~~⁴⁵, wherein said area-type imaging engine comprises a manually-triggered area-imaging engine, and programmably configured for image-based bar code reading operation upon manually depressing the imager activation button (i.e. switch) provided on the user control console of the wireless PDT system.

⁴⁷
Claim ~~46~~⁴⁵ (new): The wireless PDT system of claim ~~44~~⁴⁵, wherein said area-type imaging engine comprises an automatically-triggered area-imaging engine with IR-based object detection that is integrated within the wireless PDT, and programmably configured for automatic image-based bar code reading operation and transmission of symbol character data to a remote base terminal upon manually depressing the data transmission button (i.e. switch) provided on the user control console of said wireless PDT system.

⁴⁸
Claim ~~47~~²⁹ (new): The wireless PDT system of claim ~~28~~²⁹, wherein said area-type imaging engine comprises an automatically-triggered area-imaging engine with laser-based object detection, and programmably configured for automatic image-based bar code reading operation and transmission of symbol character data to a remote base terminal upon manually depressing a data transmission button (i.e. switch) provided on the user control console of the wireless PDT system.

⁴⁹
Claim ~~48~~⁴⁵ (new): The wireless PDT system of claim ~~44~~⁴⁵, wherein said area-type imaging engine comprises an automatically-triggered area-imaging engine with passive CCD-based object detection, and programmably configured for automatic image-based bar code reading operation and transmission of symbol character data to a remote base terminal upon manually depressing a

data transmission button (i.e. switch) provided on the user control console of said wireless PDT system.

⁵⁰
Claim ~~49~~ (new): A method of data capture and transaction processing using the wireless PDT system of claim ~~26~~. ²⁷

⁵¹
Claim ~~50~~ (new): An integrated development and deployment environment (IDE) for use in developing end-user applications with graphically rich graphical user interfaces (GUIs), that can be deployed on a wireless PDT system employing an open-source operating system that has no or low user license fees associated therewith.

⁵²
Claim ~~51~~ (new): The IDE for a wireless PDT system of claim ~~45~~, ⁴⁶ wherein a powerful set of easy-to-use application development tools are provided for developing applications that can be run on said wireless PDT system, which employs a virtual machine (MVM) so that developed applications can be run on operating systems (OS) other than the operating system upon which the development environment operates.

⁵³
Claim ~~52~~ (new): The IDE of claim ~~50~~, ⁵¹ wherein end-user applications can be developed on developer computers (PCs) running a first operating system (OS), while such applications can be deployed on run-time environments supported by a second operating system (OS).

⁵⁴
Claim ~~53~~ (new): The IDE of claim ~~50~~, ⁵¹ wherein the IDE enables the creation of display screens using drag-and-drop type visually-oriented programming techniques within a "what you see is what you get (WYSIWYG) development environment.

⁵⁵
Claim ~~54~~ (new): The IDE of claim ~~50~~, ⁵¹ wherein objects within the display screens are bound to objects within a database using development tools support "event-driven" programming, wherein the developer simply defines what actions are to occur in response to specified events.

⁵⁶
Claim ~~55~~ (new): The IDE of claim ~~50~~, ⁵¹ wherein development tools are provided for simply creating SQL relational database management systems (RDBMS) that are supported either

within memory structures aboard the PDT, or alternatively aboard Web-enabled database servers connected to an IP-based network, to which the base station of the present invention is interfaced directly or by way of a host computer system.

57

Claim ~~56~~ (new): A wireless bar code driven portable data terminal (PDT) system adapted for use in a single-handed mode of operation, while located remote from a RF-linked base station, connected to a host computer system and/or network, said PDT system comprising:

- a bottom housing structure of elongated geometry for grasping in the hand of a user;
- a printed circuit (PC) board populated with surface-mounted integrated circuits (ICs) and other electronic components;
- a LCD panel and associated ambient light sensor and associated backlight control circuitry;
- a rubberized membrane-switching structure providing a display cursor (i.e. jog) control buttons, scan and enter buttons, alphanumeric buttons, and other control keys provided on said wireless PDT;
- a mounting fixture designed for supporting the LCD panel and the rubberized membrane-switching structure;
- a top housing structure designed to snap-fit together with the bottom housing structure, with said PC board, said mounting structure, said LCD panel and said rubberized membrane-switching structure disposed therebetween and provide an assembled housing structure;
- a head housing component with an integrated scanning window, adapted to snap-fit over and enclose the front end of said assembled housing structure, behind and within which a data capture engine is mounted and electrically connected to the PC board;
- a rechargeable battery power pack adapted for support and containment within a battery compartment formed on the exterior of said bottom housing portion; and
- a battery compartment cover adapted to snap-fit over said battery pack contained within said battery compartment.

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57x

Claim ~~57~~ (new): The PDT of claim ~~56~~, which further comprises a hardware computing platform supporting the compiled object code associated with a run-time application that is run upon a

virtual machine (i.e. virtual operating system) that is, in turn, run upon another different hardware-supported operating system.

59

Claim ~~58~~ (new): A method of developing an application program for running on a wireless portable data terminal (PDT), comprising the steps of:

(a) during the development of an application program for running on a wireless PDT supported by a first operating system, generating user input and documents using development programs running on a developer computer system supported by a second operating system;

(b) developing said application program on said developer computer system into a final application program expressed in the form of binary executable code designed for execution on said first operating system loaded onto said wireless PDT;

(c) downloading the binary executable code of said final application program onto said wireless PDT; and

(d) running said final application program in binary executable code upon said first operating system loaded onto said wireless PDT.

60

Claim ~~59~~ (new): The method of claim ~~58~~⁵⁹, wherein said development programs include an application generation program for enabling the rapid design and implementation of a wireless PDT-supported information system having (i) a Presentation Layer characterized by rich graphical user interface (GUI) screens displayed on the PDT's color LCD panel, (ii) a Data Layer characterized by one or more SQL databases supported within said PDT, or within Web-enabled RDBMS servers connected to IP-based information networks such as the Internet, and (iii) a Control Layer characterized by easily implemented business logic using visual WYSIWYG, event-driven programming techniques.